

February 23, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge PLO

ARI Job No: SJ49

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted ten soil samples and one water sample on January 24, 2011. The samples were received in good condition. Select samples were placed on hold pending further instructions.

The samples were originally analyzed for Total Metals, TCLP Metals, SVOCs, PCBs and NWTPH-Dx, as requested and reported under ARI SDG SG07.

At the request of Floyd Snider, select samples were analyzed for TCLP follow ups.

No analytical complications were noted for these analyses. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely

ANALYTICAL RESOURCES, INC.

Kelly Bottem

Client Services Manager kellyb@arilabs.com 206-695-6211 Enclosures Subject: TCLP request- Jorgensen Project

From: Tom Colligan < Tom. Colligan@floydsnider.com>

Date: Wed, 23 Feb 2011 12:43:08 -0800 To: Kelly Bottem <kellyb@arilabs.com>

Kelly, please submit each of the remaining 8 oz sample of the samples on this COC, less the last two samples, for TCLP analysis. 7 day TAT. Thanks.

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Tom Colligan
FLOYD|SNIDER

Two Union Square
601 Union Street, Suite 600
Seattle, WA 98101
tel: 206.292.2078
direct line: 206-805-2166
fax: 206.682.7867
cell: 206-276-8527

tom.colligan@floydsnider.com

ARI Assigned Number:	Turn arcond 5†a	nequested:			Pkge	ı	ol	2		Analytical Resources, Incorporated Analytical Chemists and Convolutes		
ARIGIEM Company: FLOYD SNIDER 3		Phone:	26-292	-2478	Date: 1/24/// Ice Present?				7/	4611 South 134th Place, Suite 100 Tukwila, WA 98168		
Cient Contact:		ŧ	20- 27 T.	10/0	No.of Copier / /						i, vva 451.00 5-6209-205-695-6201 (fax)	
NICK GARSON / T	OM CO	LIBAN			Cockers		temp	s: 6.6 Analysis Regionité	<u></u>	continues Literation	Noins Comments	
JORGENSEN FORGE					1	T	l	9	1	T	Homa Considerty	
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JF-PLSD-P3- ISA	1/24/11	1310	Soil	3	х	×	х	x .				
<u>5F-PL3D-PS-15B</u>		1455		<u> </u>						<u> </u>		
JF-PLSD-PS-24A	ļ <u> </u>	1340			<u> </u>							
JF-PISD-PS-24B		1415		ļļ	ļ. ļ.			 -				
JF-PLSD-PS-37-7		1230		ļ ļ .	_ _	1_	<u> </u>					
JF-PLSD-PS-37-2	L_32 * 700 process	1200		<u> </u>	<u> </u>					<u> </u>		
SF PLSD-PS-PUBLIC	<u> </u>	1110			.	-	 _	<u> </u>	<u> </u>			
JE-PLSD-PS-158-R	<u> </u>	1420		<u> </u>	<u> </u>	_ _ _	\Box		<u> </u>			
TF-PLSD-PS-37-7-M		1235	<u> </u>	 	_ ↓	↓ ↓	▶	<u> </u>	<u> </u>		MS/MSD	
JF-PLSD-PS-15B-R	1	1515	WATER	2	×		<u> </u>		<u> </u>			
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Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology blowing ARI Standard Oburating Procedures and the ARI Oberlay Assurance Program, This organism mustic sharders for the liability of ARI, as official, about a monitores, or successors, absiring out of or in connection with the requested services, shall not expeed the invisional account for

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Content-Description: Picture (Device Independent Bitmap) 1.jpg
Content-Type: image/jpeg

Sample ID Cross Reference Report



ARI Job No: SJ49

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	JF-PLSD-PS-15A	SJ49A	11-3467	Soil	01/24/11 13:10	01/24/11 16:06
2.	JF-PLSD-PS-15B	SJ49B	11-3468	Soil	01/24/11 14:55	01/24/11 16:06
3.	JF-PLSD-PS-24A	SJ49C	11-3469	Soil	01/24/11 13:40	01/24/11 16:06
4.	JF-PLSD-PS-24B	SJ49D	11-3470	Soil	01/24/11 14:15	01/24/11 16:06
5.	JF-PLSD-PS-37-7	SJ49E	11-3471	Soil	01/24/11 12:30	01/24/11 16:06
6.	JF-PLSD-PS-37-2	SJ49F	11-3472	Soil	01/24/11 12:00	01/24/11 16:06
7.	JF-PLSD-PS-PUBLIC	SJ49G	11-3473	Soil	01/24/11 11:10	01/24/11 16:06

Printed 02/17/11

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn	rn-around Requested: Standard Rhope:					Į.	of	2		Analytical Resources, Incorporate Analytical Chemists and Consultan		
ARI Client Company: FLOYD SNIDER . 3			Phone:	106-29:	-2078	U Date	1/24/1	lce Pres	ent?	V	4611 Sc Tukwila	with 134th Place, Suite 100 , WA 98168	
	оΜ	<u>(</u> 0	I LLIGAN			No. of Coolers		Cool Temp	er 58: 6.6		206-693	3-6200 206-695-6201 (Jax)	
Clent Project Name: JORGENSEN FORGE							1	i i	Analysis Requested			Notes/Comments	
Clent Project # アKPL 2 JoR	Sam	olecs: EAN	BRAME	TOM CO	LIGAN		MATERIAL STATES	A	caj Cu, Pb				
Sample ID	5	dale	Time	Matrix	Mar. Controllers	P.C.B.,	\$V0 C.5	TRI 3	Metals As, Cal, Co Mi, En				
JF-PLSD-PS- 15A	1/2	4/11	/310	Soir	3		×	×	×			2) 12 (12 (12 (12 (12 (12 (12 (12 (12 (12	
JF-PLSD-PS-15B			1455		<u> </u>								
JF-PLSD-PS-24A			1340										
JF-PISD-PS-24B			1415										
JF-PLSD-PS-37-7			1230										
JF-PLSD-PS-37-2			1200										
JFPLSD-PS-PUBLK			1:10										
JF-PLSD-PS -158-R			1420								and the same of th		
JF-PLSD-PS-37-7-M			1235	<u> </u>	1 4	<u> </u>	<u> </u>	→				MS/MSD	
JF-PLSD-PS-15B-R		<u> </u>	1515	WATER	2	X							
Comments/Special Instructions	Reimq: (Signal	ustice by:	I am Le		Focored by: (Signature)	Jan	T Se	<u> </u>	Reingumed by: (Spraise)		Hosewod by: (Signature)	Paul Parket and American Company of the Company of	
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	Compa	Ση:	SNIDER	<u> </u>	Сотрату:				Company		Conseny:		
	Case &	շտ։ 4∫#	1606	-	Date is Time:	4/11	16	06	Oşin & Tirse		Date & Time.		

Limits of Liability: ARI will perform all requested services in eccordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program moved sentences for the industry. The total liability at ARI this officers, about a employees, or successors, arising out of or in connection with the requested services, shall not exceed the involved amount for



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49A

LIMS ID: 11-3467 Matrix: Soil

Data Release Authorized

Reported: 02/23/11

Sample ID: JF-PLSD-PS-15A SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
							5/ -	- 2
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.19	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.01	U
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	0.1	U
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	2.74	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



INORGANICS ANALYSIS DATA SHEET TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49A

LIMS ID: 11-3467

Matrix: Soil Data Release Authorized

Reported: 02/23/11

Sample ID: JF-PLSD-PS-15A DUPLICATE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis				Control		
Analyte	Method	Sample	Duplicate	RPD	Limit	Q	
Arsenic	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L	
Barium	6010B	0.19	0.19	0.0%	+/- 20%		
Cadmium	6010B	0.01 U	0.01 U	0.0%	+/- 0.01	L	
Chromium	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L	
Lead	6010B	0.1 U	0.1 U	0.0%	+/- 0.1	L	
Mercury	7470A	0.0001 U	0.0001 U	0.0%	+/- 0.0001	L	
Nickel	6010B	2.74	2.70	1.5%	+/- 20%		
Selenium	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L	
Silver	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L	

Reported in mg/L

*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit



TCLP METALS
Page 1 of 1

Lab Sample ID: SJ49A

LIMS ID: 11-3467

Matrix: Soil

Data Release Authorized: Reported: 02/23/11 Sample ID: JF-PLSD-PS-15A MATRIX SPIKE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	%	
Analyte	Method	Sample	Spike	Added	Recovery	Q
Arsenic	6010B	0.2 U	4.2	4.0	105%	
Barium	6010B	0.19	4.14	4.00	98.8%	
Cadmium	6010B	0.01 U	1.04	1.00	104%	
Chromium	6010B	0.02 U	1.01	1.00	101%	
Lead	6010B	0.1 U	4.1	4.0	102%	
Mercury	7470A	0.0001 U	0.0011	0.0010	110%	
Nickel	6010B	2.74	3.74	1.00	100%	
Selenium	6010B	0.2 U	4.3	4.0	108%	
Silver	6010B	0.02 U	1.02	1.00	102%	

Reported in mg/L

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49B

LIMS ID: 11-3468

Matrix: Soil

Data Release Authorized

Reported: 02/23/11

Sample ID: JF-PLSD-PS-15B

SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	ma/I	^
Meth	Date	Method	Date	CAS NUMBEL	Analyte	KL	mg/L	Q
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.75	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.11	
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.12	
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	1.3	
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	2.47	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U

U-Analyte undetected at given RL

RL-Reporting Limit



INORGANICS ANALYSIS DATA SHEET TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49C

LIMS ID: 11-3469 Matrix: Soil

Data Release Authorized

Reported: 02/23/11

Sample ID: JF-PLSD-PS-24A

SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep Date	arrest and the contract of the		CAS Number	Analyte	RL	ma/L	Q
						9/ 2	×
02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.18	
02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.08	
02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.05	
02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	0.2	
02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	2.46	
02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U
	02/18/11 02/18/11 02/18/11 02/18/11 02/18/11 02/18/11 02/18/11 02/18/11	Date Method 02/18/11 6010B 02/18/11 6010B 02/18/11 6010B 02/18/11 6010B 02/18/11 6010B 02/18/11 7470A 02/18/11 6010B 02/18/11 6010B	Date Method Date 02/18/11 6010B 02/21/11 02/18/11 7470A 02/22/11 02/18/11 6010B 02/21/11 02/18/11 6010B 02/21/11 02/18/11 6010B 02/21/11	Date Method Date CAS Number 02/18/11 6010B 02/21/11 7440-38-2 02/18/11 6010B 02/21/11 7440-39-3 02/18/11 6010B 02/21/11 7440-43-9 02/18/11 6010B 02/21/11 7440-47-3 02/18/11 6010B 02/21/11 7439-92-1 02/18/11 7470A 02/22/11 7439-97-6 02/18/11 6010B 02/21/11 7440-02-0 02/18/11 6010B 02/21/11 7782-49-2	Date Method Date CAS Number Analyte 02/18/11 6010B 02/21/11 7440-38-2 Arsenic 02/18/11 6010B 02/21/11 7440-39-3 Barium 02/18/11 6010B 02/21/11 7440-43-9 Cadmium 02/18/11 6010B 02/21/11 7440-47-3 Chromium 02/18/11 6010B 02/21/11 7439-92-1 Lead 02/18/11 7470A 02/22/11 7439-97-6 Mercury 02/18/11 6010B 02/21/11 7440-02-0 Nickel 02/18/11 6010B 02/21/11 7782-49-2 Selenium	Date Method Date CAS Number Analyte RL 02/18/11 6010B 02/21/11 7440-38-2 Arsenic 0.2 02/18/11 6010B 02/21/11 7440-39-3 Barium 0.02 02/18/11 6010B 02/21/11 7440-43-9 Cadmium 0.01 02/18/11 6010B 02/21/11 7440-47-3 Chromium 0.02 02/18/11 6010B 02/21/11 7439-92-1 Lead 0.1 02/18/11 7470A 02/22/11 7439-97-6 Mercury 0.0001 02/18/11 6010B 02/21/11 7440-02-0 Nickel 0.05 02/18/11 6010B 02/21/11 7782-49-2 Selenium 0.2	Date Method Date CAS Number Analyte RL mg/L 02/18/11 6010B 02/21/11 7440-38-2 Arsenic 0.2 0.2 02/18/11 6010B 02/21/11 7440-39-3 Barium 0.02 0.18 02/18/11 6010B 02/21/11 7440-43-9 Cadmium 0.01 0.08 02/18/11 6010B 02/21/11 7440-47-3 Chromium 0.02 0.05 02/18/11 6010B 02/21/11 7439-92-1 Lead 0.1 0.2 02/18/11 7470A 02/22/11 7439-97-6 Mercury 0.0001 0.0001 02/18/11 6010B 02/21/11 7440-02-0 Nickel 0.05 2.46 02/18/11 6010B 02/21/11 7782-49-2 Selenium 0.2 0.2



INORGANICS ANALYSIS DATA SHEET TCLP METALS

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Lab Sample ID: SJ49D

LIMS ID: 11-3470

Matrix: Soil Data Release Authorized

Reported: 02/23/11

Sample ID: JF-PLSD-PS-24B

SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep	Prep	100 May 100 May 1	Analysis					
Meth	Date	Method	Date	CAS Number	Analyte	RL	mg/L	Q
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.07	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.01	U
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	0.1	U
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	1.30	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49E

LIMS ID: 11-3471

Matrix: Soil

Data Release Authorized:

Reported: 02/23/11

Sample ID: JF-PLSD-PS-37-7

SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
			2000	31.5 1,01.5 01			g/ 2	~
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.09	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.02	
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	0.8	
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	0.32	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49F

LIMS ID: 11-3472

Matrix: Soil

Data Release Authorized:

Reported: 02/23/11

Sample ID: JF-PLSD-PS-37-2

SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep	Prep		Analysis			100	•30	
Meth	Date	Method	Date	CAS Number	Analyte	RL	mg/L	Q
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.24	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.07	
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.06	
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	4.0	
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	1.23	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49G

LIMS ID: 11-3473

Matrix: Soil

Data Release Authorized Reported: 02/23/11

Sample ID: JF-PLSD-PS-PUBLIC SAMPLE

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 01/24/11 Date Received: 01/24/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.34	
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.04	
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.04	
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	1.2	
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	0.21	
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



TCLP METALS

Page 1 of 1

Lab Sample ID: SJ49MB

LIMS ID: 11-3468 Matrix: Soil

Data Release Authorized

Reported: 02/23/11

Sample ID: METHOD BLANK

QC Report No: SJ49-The Boeing Company

Project: Jorgensen Forge 7KPL2JOR

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
					TAR	3		-
1311	02/18/11	6010B	02/21/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-39-3	Barium	0.02	0.02	U
1311	02/18/11	6010B	02/21/11	7440-43-9	Cadmium	0.01	0.01	U
1311	02/18/11	6010B	02/21/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/18/11	6010B	02/21/11	7439-92-1	Lead	0.1	0.1	U
1311	02/18/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/18/11	6010B	02/21/11	7440-02-0	Nickel	0.05	0.05	U
1311	02/18/11	6010B	02/21/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/18/11	6010B	02/21/11	7440-22-4	Silver	0.02	0.02	U



February 21, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SJ56

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted one water sample and one soil sample soil sample on February 17, 2011. The samples were received in good condition. The soil sample was logged under a different ARI SDG based on client specified turn around times.

The sample was analyzed for PCBs, as requested.

No analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC

Kelly Bottem Client Services Manager kellyb@arilabs.com 206-695-6211 Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number	Turn-around Requested: 2DAY Sample#1; Standard other				Page: of					Analytical Resources, Incorporated Analytical Chemists and Consultants			
ARI Client Company: FLOYD SNIDER	54	Phone: 2	06 292	2078	Date: Ice Present?					4611 South 134th Place, Suite 100 Tukwila, WA 98168			
Client Contact: NICK GARSON / TO	M COLL	GAN			No. of Coolers:	No. of Cooler Temps: 2, 2					206-695-6200 206-695-6201 (fax)		
Client Project Name:								Analysis	Requested			Notes/Comments	
JORGENSEN FORGE Client Project #: 7K PL2 JOR	Samplers: D. BRAME			(8) Letals									
Sample ID	Date	Time	Matrix	No. Containers	28 35	RCRAMETAS TCLP							
JF-PLSD-RJW-4L	2/15/11	1145	Water	ı	×							2-DAY	
JF-PLSD-SWC-17	2/17/11	1215	Soil	1	×	×						STANDARD	
					91								
					1								
Comments/Special Instructions	Relinquished by: (Signature)	land &	2	Received by: (Signature)				Relinquished (Signature)	by:	'	Received by: (Signature)		
	Printed Name:	N BRAI	nE	Printed Name:	1/0/0	and.	80 M	Printed Nam	e:		Printed Name	ə:	
	Company:	YD SNII		Company:	Volgardsen Company:				Company:				
	Date & Time: 2/17/h	143	- V2	Date & Time:		143	0	Date & Time			Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Sample ID Cross Reference Report



ARI Job No: SJ56

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	JF-PLSD-RJW-4L	SJ56A	11-3497	Water	02/15/11 11:45	02/17/11 14:36

Printed 02/17/11

Sample ID on B	ottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
Additional Notes, Di	screpancies, & I	Resolutions:		
Зу:	Date:		·	
Small Air Bubbles	Peabubbles'	LARGE Air Bubbles	Small → "sm"	
		> 4 mm	Small → "sm" Peabubbles → "pb"	
	Peabubbles'			



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: JF-PLSD-RJW-4L

SAMPLE

Lab Sample ID: SJ56A LIMS ID: 11-3497

Matrix: Water

GPC Cleanup: No

Sulfur Cleanup: Yes

Data Release Authorized:

Date Extracted: 02/17/11

Date Analyzed: 02/18/11 12:56

Instrument/Analyst: ECD7/JGR

Reported: 02/21/11

QC Report No: SJ56-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/15/11 Date Received: 02/17/11

Sample Amount: 500 mL Final Extract Volume: 1.0 mL

Dilution Factor: 1.00 Silica Gel: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.10	< 0.10 U
53469-21-9	Aroclor 1242	0.10	< 0.10 U
12672-29-6	Aroclor 1248	0.10	1.6
11097-69-1	Aroclor 1254	0.10	1.9
11096-82-5	Aroclor 1260	0.16	< 0.16 Y
11104-28-2	Aroclor 1221	0.10	< 0.10 U
11141-16-5	Aroclor 1232	0.10	< 0.10 U
37324~23-5	Aroclor 1262	0.10	< 0.10 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.8%
Tetrachlorometaxylene	68.5%



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: MB-021711

LIMS ID: 11-3497 Matrix: Water

Data Release Authorized:

Reported: 02/21/11

Date Extracted: 02/17/11 Date Analyzed: 02/18/11 10:56 Instrument/Analyst: ECD7/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Sample ID: MB-021711

METHOD BLANK

QC Report No: SJ56-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 500 mL

Final Extract Volume: 1.0 mL

Dilution Factor: 1.00

Silica Gel: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.10	< 0.10 U
53469-21-9	Aroclor 1242	0.10	< 0.10 U
12672-29-6	Aroclor 1248	0.10	< 0.10 U
11097-69-1	Aroclor 1254	0.10	< 0.10 U
11096-82-5	Aroclor 1260	0.10	< 0.10 U
11104-28-2	Aroclor 1221	0.10	< 0.10 U
11141-16-5	Aroclor 1232	0.10	< 0.10 U
37324-23-5	Aroclor 1262	0.10	< 0.10 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.0%
Tetrachlorometaxylene	66.0%



SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: SJ56-The Boeing Company Project: Jorgensen Forge

7KPL2JOR

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-021711	78.0%	35-116	66.0%	29-100	0
LCS-021711	81.2%	35-116	67.0%	29-100	0
LCSD-021711	78.8%	35-116	62.0%	29-100	0
JF-PLSD-RJW-4L	80.8%	10-128	68.5%	25-100	0

Prep Method: SW3510C Log Number Range: 11-3497 to 11-3497



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: LCS-021711

LIMS ID: 11-3497 Matrix: Water

Data Release Authorized:

Reported: 02/21/11

Date Extracted LCS/LCSD: 02/17/11

Date Analyzed LCS: 02/18/11 11:20

LCSD: 02/18/11 11:44

Instrument/Analyst LCS: ECD7/JGR

LCSD: ECD7/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample ID: LCS-021711

LCS/LCSD

QC Report No: SJ56-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount LCS: 500 mL

LCSD: 500 mL

Final Extract Volume LCS: 1.0 mL

LCSD: 1.0 mL

Dilution Factor LCS: 1.00

LCSD: 1.00 Silica Gel: Yes

Acid Cleanup: Yes

Spike LCS Spike LCSD Analyte LCS Added-LCS LCSD Added-LCSD Recovery Recovery RPD Aroclor 1016 0.654 1.00 65.4% 0.647 1.00 64.7% 1.1% 0.733 73.3% 0.735 1.00 73.5% Aroclor 1260 1.00 0.3%

PCB Surrogate Recovery

LCSD LCS Decachlorobiphenyl 81.2% 78.8% Tetrachlorometaxylene 67.0% 62.0%

Results reported in µg/L RPD calculated using sample concentrations per SW846.



February 28, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SJ68

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted one water sample and one soil sample soil sample on February 17, 2011. The samples were received in good condition. The water sample was logged under ARI SDG SJ56 based on client specified turn around times.

The sample was analyzed for PCBs and TCLP metals, as requested.

The PCBs LCS is out of control high for aroclor 1016. No action was taken.

The surrogate TCMX is out of control high for sample JF-PLSD-SWC-17.

No other analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely

ANALYTICAL RESOURCES, INC.

Kelly Bottem

Client Services Manager kellyb@arilabs.com 206-695-6211

Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: Turn-around Requested: ZDAY Sample#1; Standard other Phone: Phone: ZOG Z9Z Z078 Client Contact: NICK GARSON TOM COLLIGAN					Page Date 2 No. of	 - 17 11	of Ice Pres	sent?	1	1	Analyti 4611 S Tukwil	ical Resources, Incorporated ical Chemists and Consultant touth 134th Place, Suite 100 a, WA 98168 15-6200 206-695-6201 (fax)
Client Project Name:	M COLL	107.10							Requested			Notes/Comments
JORGENSEN FORGE	-					2						
Client Project #: 7K P L 2 J O R	Samplers:	D. BRAM	1E		8	Pret						
Sample ID	Date	Time	Matrix	No. Containers	MTCA PCBs(8)	RURA Metuls TCLP						
JF-PLSD-RJW-4L	2/15/11	1145	Water	1	×							2-DAY
JF-PLSD-SWC-17	2/17/11	1215	Soil		×	X						STANDARD
					1							
					9 ax	aclo	1					
					Rea	Max						
						pu						
4						51						
Comments/Special Instructions	Relinquished by:	1	>	Received by:			_	Relinquished	by:		Received by:	
	(Signature) 42 Printed Name:	N BRAN	nE	(Signature) Printed Name:	1010	raid	30M	(Signature) Printed Nam	e:		(Signature) Printed Name	9:
	Company: FLO	YD SNI	SER	Company:	0 ,-			Company:			Company:	
	Date & Time: 2/17/11	143		Date & Time: 2/17/1		143	0	Date & Time:			Date & Time:	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Cooler Receipt Form

ARI Client: BOLINO		Project Name: Joyala	sen F	orge	
COC No(s):	(NA)	Delivered by: Fed-Ex UPS Courie	Hand Delive	red Other:	
Assigned ARI Job No:	8	Tracking No:			NA)
Preliminary Examination Phase:		Tracking tree			
Were intact, properly signed and da	ated custody seals attached to the	ne outside of to cooler?	,	YES	(NO)
Were custody papers included with	the cooler?		C	YES	NO
Were custody papers properly filled			Č	YES	NO
Temperature of Cooler(s) (°C) (rec					
If cooler temperature is out of com		2.0	Temp Gun ID	#: 9094	11019
Cooler Accepted by:	\	Date: 2/17/11 Time:	11101		
Coolei Accepted by.		nd attach all shipping documents		4	
Log-In Phase:					
Was a temperature blank included	I in the cooler?			YES	NO
What kind of packing material w		Wet Ice Gel Packs Baggies Foam I	Block Paper C	Other:	
Was sufficient ice used (if appropr			NA	YES	NO
Were all bottles sealed in individua				(YES)	NO
Did all bottles arrive in good condi	ition (unbroken)?			YES	NO
Were all bottle labels complete an	d legible?			YES	NO
Did the number of containers liste	d on COC match with the number	er of containers received?		YES	NO
Did all bottle labels and tags agre-	e with custody papers?			YES	NO
Were all bottles used correct for the	he requested analyses?			YES	NO
Do any of the analyses (bottles) re	equire preservation? (attach pres	servation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bub	bles?		NA	YES	NO
Was sufficient amount of sample	sent in each bottle?			YES	NO
Date VOC Trip Blank was made a	at ARI		(NA)		
Was Sample Split by ARI:	A YES Date/Time:	Equipment:		Split by:	
Samples Logged by:	Date:	2/13/11 Time:	1755		
	** Notify Project Manager	r of discrepancies or concerns **		_	
OI- ID D-tfl-	Sample ID on COC	Comple ID on Pottle	Comm	la ID an O	00
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Samp	ole ID on C	00
					~
Additional Notes, Discrepanci	es, & Resolutions:				
х.					
					¥.
	ate:				****
Small Air Bubbles Peabub	D I TOE I'M DODDING	Small → "sm"			
		Peabubbles → "pb"			-
		Large → "lg"			
		Headspace → "hs"			

Sample ID Cross Reference Report



ARI Job No: SJ68

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	JF-PLSD-SWC-17	SJ68A	11-3586	Soil	02/17/11 12:15	02/17/11 14:36

Printed 02/17/11



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: SJ68A

LIMS ID: 11-3586 Matrix: Soil

Data Release Authorized:

Reported: 02/28/11

Date Extracted: 02/22/11 Date Analyzed: 02/25/11 09:49 Instrument/Analyst: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: JF-PLSD-SWC-17

SAMPLE

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/17/11 Date Received: 02/17/11

Sample Amount: 0.84 g-dry-wt

Final Extract Volume: 40 mL Dilution Factor: 50.0 Silica Gel: No

Percent Moisture: 18.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	48,000	< 48,000 U
53469-21-9	Aroclor 1242	48,000	< 48,000 U
12672-29-6	Aroclor 1248	190,000	< 190,000 Y
11097-69-1	Aroclor 1254	48,000	350,000
11096-82-5	Aroclor 1260	48,000	< 48,000 U
11104-28-2	Aroclor 1221	48,000	< 48,000 U
11141-16-5	Aroclor 1232	48,000	< 48,000 U
37324-23-5	Aroclor 1262	48,000	< 48,000 U
11100-14-4	Aroclor 1268	48,000	< 48,000 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	145%
Tetrachlorometaxylene	114%



SW8082/PCB SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: SJ68-The Boeing Company Project: Jorgensen Forge 7KPL2JOR

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-022211	92.9%	51-127	88.0%	49-110	0
LCS-022211	101%	51-127	98.9%	49-110	0
JF-PLSD-SWC-17	145%	22-168	114%*	28-106	1

Medium Level Control Limits Prep Method: SW3580A

Log Number Range: 11-3586 to 11-3586



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: MB-022211

LIMS ID: 11-3586 Matrix: Soil

Data Release Authorized:

Reported: 02/28/11

Date Extracted: 02/22/11 Date Analyzed: 02/25/11 09:11 Instrument/Analyst: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: MB-022211

METHOD BLANK

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 5.00 g Final Extract Volume: 40 mL

Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	RL	Result			
12674-11-2	Aroclor 1016	800	< 800 U			
53469-21-9	Aroclor 1242	800	< 800 U			
12672-29-6	Aroclor 1248	800	< 800 U			
11097-69-1	Aroclor 1254	800	< 800 U			
11096-82-5	Aroclor 1260	800	< 800 U			
11104-28-2	Aroclor 1221	800	< 800 U			
11141-16-5	Aroclor 1232	800	< 800 U			
37324-23-5	Aroclor 1262	800	< 800 U			
11100-14-4	Aroclor 1268	800	< 800 U			

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	92.9%
Tetrachlorometaxylene	88.0%



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Lab Sample ID: LCS-022211

LIMS ID: 11-3586 Matrix: Soil

Data Release Authorized:

Reported: 02/28/11

Date Extracted: 02/22/11 Date Analyzed: 02/25/11 09:30 Instrument/Analyst: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: LCS-022211

LAB CONTROL

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 5.00 g-dry-wt

Final Extract Volume: 40 mL Dilution Factor: 5.00

Silica Gel: No

Percent Moisture: NA

Analyte	Lab Control	Spike Added	Recovery	
Aroclor 1016	4460	4000	112%	
Aroclor 1260	4060	4000	102%	

PCB Surrogate Recovery

Decachlorobiphenyl	101%
Tetrachlorometaxylene	98.9%

Results reported in µg/kg (ppb)



INORGANICS ANALYSIS DATA SHEET TCLP METALS

Page 1 of 1

Lab Sample ID: SJ68A

LIMS ID: 11-3586

Matrix: Soil

Data Release Authorized:

Reported: 02/25/11

Sample ID: JF-PLSD-SWC-17

SAMPLE

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/17/11
Date Received: 02/17/11

Prep	Prep	Analysis						
Meth	Date	Method	Date	CAS Number	Analyte	RL	mg/L	Q
1311	02/22/11	6010B	02/24/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/22/11	6010B	02/24/11	7440-39-3	Barium	0.02	0.06	
1311	02/22/11	6010B	02/24/11	7440-43-9	Cadmium	0.01	0.01	
1311	02/22/11	6010B	02/24/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/22/11	6010B	02/24/11	7439-92-1	Lead	0.1	0.1	U
1311	02/22/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/22/11	6010B	02/24/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/22/11	6010B	02/24/11	7440-22-4	Silver	0.02	0.02	U



TCLP METALS

Page 1 of 1

Sample ID: JF-PLSD-SWC-17

DUPLICATE

Lab Sample ID: SJ68A LIMS ID: 11-3586

Matrix: Soil

Data Release Authorized:

Reported: 02/25/11

QC Report No: SJ68-The Boeing Company Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/17/11 Date Received: 02/17/11

MATRIX DUPLICATE QUALITY CONTROL REPORT

	Analysis				Control	
Analyte	Method	Sample	Duplicate	RPD	Limit	Q
Arsenic	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Barium	6010B	0.06	0.06	0.0%	+/- 0.02	L
Cadmium	6010B	0.01	0.01	0.0%	+/- 0.01	L
Chromium	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L
Lead	6010B	0.1 U	0.1 U	0.0%	+/- 0.1	L
Mercury	7470A	0.0001 U	0.0001 U	0.0%	+/- 0.0001	L
Selenium	6010B	0.2 U	0.2 U	0.0%	+/- 0.2	L
Silver	6010B	0.02 U	0.02 U	0.0%	+/- 0.02	L

Reported in mg/L

*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit



INORGANICS ANALYSIS DATA SHEET TCLP METALS

Page 1 of 1

Sample ID: JF-PLSD-SWC-17 MATRIX SPIKE

Lab Sample ID: SJ68A

LIMS ID: 11-3586

Matrix: Soil

Data Release Authorized

Reported: 02/25/11

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/17/11 Date Received: 02/17/11

MATRIX SPIKE QUALITY CONTROL REPORT

	Analysis			Spike	%		
Analyte	Method	Sample	Spike	Added	Recovery	Q	
Arsenic	6010B	0.2 U	4.1	4.0	102%		
Barium	6010B	0.06	3.93	4.00	96.8%		
Cadmium	6010B	0.01	1.08	1.00	107%		
Chromium	6010B	0.02 U	1.00	1.00 .	100%		
Lead	6010B	0.1 U	4.1	4.0	102%		
Mercury	7470A	0.0001 U	0.0011	0.0010	110%		
Selenium	6010B	0.2 U	4.2	4.0	105%		
Silver	6010B	0.02 U	1.02	1.00	102%		

Reported in mg/L)

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%



INORGANICS ANALYSIS DATA SHEET TCLP METALS

Page 1 of 1

Lab Sample ID: SJ68MB

LIMS ID: 11-3586

Matrix: Soil

Data Release Authorized

Reported: 02/25/11

Sample ID: METHOD BLANK

QC Report No: SJ68-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Prep	Prep	Analysis	50			nada Nadi		
Meth	Date	Method	Date	CAS Number	Analyte	RL	mg/L	Q
1311	02/22/11	6010B	02/24/11	7440-38-2	Arsenic	0.2	0.2	U
1311	02/22/11	6010B	02/24/11	7440-39-3	Barium	0.02	0.02	U
1311	02/22/11	6010B	02/24/11	7440-43-9	Cadmium	0.01	0.01	U
1311	02/22/11	6010B	02/24/11	7440-47-3	Chromium	0.02	0.02	U
1311	02/22/11	6010B	02/24/11	7439-92-1	Lead	0.1	0.1	U
1311	02/22/11	7470A	02/22/11	7439-97-6	Mercury	0.0001	0.0001	U
1311	02/22/11	6010B	02/24/11	7782-49-2	Selenium	0.2	0.2	U
1311	02/22/11	6010B	02/24/11	7440-22-4	Silver	0.02	0.02	U



March 3, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SK67

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted three water samples and one solid sample on February 25, 2011. The samples were received in good condition. The solid sample has been logged under a different ARI SDG based on client specified turn around times.

The samples were analyzed for PCBs, Total Metals, pH, Settleable Solids and Oil and Grease, as requested.

The PCB surrogate DCBP is out of control high for all associated samples. No action was taken.

No other analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely.

Kelly Bottem
Client Services Manager

RCES, INC.

kellyb@arilabs.com

206-695-6211 Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: Shall	Turn-around	Requested:	1:1 61	/ /	Page:	1	of	1		4			cal Resources, Incorporated	
ARI Client Company:	Vater=3	Phone:	olid-Stan -292-	2079	Date:	<u> </u>	Ice Prese	nt2 \				Analytical Chemists and Consultants 4611 South 134th Place, Suite 100		
Floyd Snider Client Contact:		LO	-292-	2010	2 / 2 No. of	<u>-5 11</u>	Coole						, WA 98168 5-6200 206-695-6201 (fax)	
Nick Garson / To Client Project Name:	m Collia	an			Coolers:	1	Temp	s: 2.7,	1.8				0200 200 030 0201 (10.1)	
Client Project Name:						1		Analysis A	equested				Notes/Comments	
Jorgenson Forge Client Project #:	Samplers:					tab	<u>6</u>		સુ					
7KPL2 JOR	Dampiers.). BRAI	ME			Me	For	eabl	₹ 8	TAL				
Sample ID	Date	Time	Matrix	No. Containers	H d	Total Metak	HEM (F06)	Settleable Solids	MTCAPCBS	707 PCB				
JF-PLSD-WC-BO8	2/25/11	1250	Water	6	×	×	×	Х	×				5-Day	
JF-PLSD-WC-B59	2/25/11	1330	Water	6	×	×	×	×	ʹ≻				5-Day	
JF-PLSD-WC-B89	2/25/11		Water	6	×	×	×	×	>				5-Day	
JF-PLSD-WD-12	2/25/11	1445	Solid	1						×			Standard	
										_				
		1										_		
Comments/Special Instructions	Relinquished by		>	Received by:	10	-100	_	Relinquished	by:			Received by:		
	(Signature) A	und,		(Signature) Printed Name:	<i>y</i>			(Signature) Printed Name:		(Signature) Printed Nam	٥.			
	1	BRAME	-	Tayl	21	strec	t-ev					, miles man	·.	
	Company:			Company:	100	-		Company:				Company:		
	Date & Time:	DISNID	ER	Date & Time:	HK-	ر		Date & Time:				Date & Time		
		1 lleo	5	2-25-	-11 10	5:10		Date & Tille.				Date & Title	•	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated Analytical Chemists and Consultants Cooler Rece	ipt F	orm
ARI Client: Floy a Shider JM Project Name: Jorge	in Ser	for
COC No(s): NA Delivered by: Fed-Ex UPS Courier Assigned ARI Job No: Tracking No:		_
Preliminary Examination Phase:		
Were intact, properly signed and dated custody seals attached to the outside of to cooler?		YES
Were custody papers included with the cooler?		YES
Were custody papers properly filled out (ink, signed, etc.)	1	(YES)
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 2.7 1 · 8		
	emp Gun II	D#: 909
Cooler Accepted by:	18:10	
Complete custody forms and attach all shipping documents		
Log-In Phase:		
Was a temperature blank included in the cooler?		YES
What kind of packing material was used? Butble Wrap Wet Ice Gel Packs Baggies Foam Blo	ck Paper	Other:
Was sufficient ice used (if appropriate)?	NA	YES
Were all bottles sealed in individual plastic bags?		YES
Did all bottles arrive in good condition (unbroken)?		(ES)
Were all bottle labels complete and legible?		(YES)
Did the number of containers listed on COC match with the number of containers received?		(ES)
Did all bottle labels and tags agree with custody papers?		(YES)
Were all bottles used correct for the requested analyses?		FES
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES
Were all VOC vials free of air bubbles?	(NA)	YES

YES

(NA)

Was Sample Split by ARI:

Samples Logged by: __

Was sufficient amount of sample sent in each bottle?

Date VOC Trip Blank was made at ARI.....

Date/Time:

Date:

** Notify Project Manager of discrepancies or concerns **

,,,,				
Sample ID on E	Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
Additional Notes, D	iscrepancies, & F	Resolutions:		
	>			
		•		
Ву:	Date:			
Small Air Bubbles	Peabubbles'	16 1 1	Small → "sm"	
-2mm	2-4 mm	>4 mm	Peabubbles → "pb"	
:	••••		Large → "lg"	
			Headspace → "hs"	

Equipment:_

Time:

forge

_ NA

NO

(NO

NO (NO)

NO

NO NO NO NO NO

NO

NO

(FES)

Split by:

Sample ID Cross Reference Report



ARI Job No: SK67

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
2.	JF-PLSD-WC-B08 JF-PLSD-WC-B59 JF-PLSD-WC-B89	SK67A SK67B SK67C	11-4082 11-4083 11-4084		02/25/11 12:50 02/25/11 13:30 02/25/11 13:55	02/25/11 16:10 02/25/11 16:10 02/25/11 16:10

Printed 02/25/11

PRESERVATION VERIFICATION 02/25/11

Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

Inquiry Number: NONE

Analysis Requested: 02/28/11

Contact: Garson, Nick

Client: The Boeing Company

Logged by: JM

Sample Set Used: Yes-481 Validatable Package: No

Deliverables:

ARI Job No: SK67

PC: Kelly

VTSR: 02/25/11

Project #: 7KPL2JOR

Project: Jorgensen Forge

Sample Site:

SDG No:

Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	AK102 <2	1	1	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
11-4082 SK67A	JF-PLSD-WC-B08					an	TOF														,	
11-4083 SK67B	JF-PLSD-WC-B59						TOT															
11-4084 SK67C	JF-PLSD-WC-B89					1	TOT															

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: JF-PLSD-WC-B08

1.0 < 1.0 U

SAMPLE

Lab Sample ID: SK67A

LIMS ID: 11-4082 Matrix: Water

Data Release Authorized:

Date Extracted: 02/28/11

Date Analyzed: 03/02/11 09:31

Instrument/Analyst: ECD7/AAR

37324-23-5 Aroclor 1262

Reported: 03/02/11

GPC Cleanup: No Sulfur Cleanup: Yes

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/25/11 Date Received: 02/25/11

Sample Amount: 500 mL Final Extract Volume: 1.0 mL Dilution Factor: 10.0

Silica Gel: No Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	3.5	< 3.5 Y
11097-69-1	Aroclor 1254	1.0	5.5
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

Decachlorobiphenyl	140%
Tetrachlorometaxylene	73.0%



Page 1 of 1

Sample ID: JF-PLSD-WC-B59

SAMPLE

Lab Sample ID: SK67B LIMS ID: 11-4083

Matrix: Water

GPC Cleanup: No

Sulfur Cleanup: Yes

Data Release Authorized:

Date Extracted: 02/28/11
Date Analyzed: 03/02/11 09:55
Instrument/Analyst: ECD7/AAR

Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/25/11 Date Received: 02/25/11

Sample Amount: 500 mL Final Extract Volume: 1.0 mL Dilution Factor: 10.0 Silica Gel: No

Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	2.6	< 2.6 Y
11097-69-1	Aroclor 1254	1.0	3.2
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U
37324-23-5	Aroclor 1262	1.0	< 1.0 U

Reported in µg/L (ppb)

	-
Decachlorobiphenyl	137%
Tetrachlorometaxylene	74.2%



Page 1 of 1

Sample ID: JF-PLSD-WC-B89

SAMPLE

Lab Sample ID: SK67C LIMS ID: 11-4084

Sulfur Cleanup: Yes

Matrix: Water

Data Release Authorized: / Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/25/11 Date Received: 02/25/11

Date Extracted: 02/28/11 Sample Amount: 500 mL Final Extract Volume: 1.0 mL Dilution Factor: 10.0 Date Analyzed: 03/02/11 10:19 Instrument/Analyst: ECD7/AAR GPC Cleanup: No

Silica Gel: No Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	2.0	< 2.0 Y
11097-69-1	Aroclor 1254	1.0	2.1
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U
37324-23-5	Aroclor 1262	1.0	< 1.0 U

Reported in µg/L (ppb)

Decachlorobiphenyl	131%
Tetrachlorometaxylene	69.2%



Page 1 of 1

Lab Sample ID: MB-022811

LIMS ID: 11-4082

Matrix: Water

Data Release Authorized:

Reported: 03/02/11

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 13:25
Instrument/Analyst: ECD7/AAR

GPC Cleanup: No Sulfur Cleanup: Yes Sample ID: MB-022811

METHOD BLANK

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 500 mL Final Extract Volume: 1.0 mL Dilution Factor: 1.00

Silica Gel: No Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	0.10	< 0.10 U
53469-21-9	Aroclor 1242	0.10	< 0.10 U
12672-29-6	Aroclor 1248	0.10	< 0.10 U
11097-69-1	Aroclor 1254	0.10	< 0.10 U
11096-82-5	Aroclor 1260	0.10	< 0.10 U
11104-28-2	Aroclor 1221	0.10	< 0.10 U
11141-16-5	Aroclor 1232	0.10	< 0.10 U
37324-23-5	Aroclor 1262	0.10	< 0.10 U

Reported in µg/L (ppb)

Decachlorobiphenyl	89.2%
Tetrachlorometaxylene	71.2%



SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: SK67-The Boeing Company Project: Jorgensen Forge 7KPL2JOR

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-022811 LCS-022811 LCSD-022811 JF-PLSD-WC-B08 JF-PLSD-WC-B59 JF-PLSD-WC-B89	140%* 137%*	35-116 35-116 35-116 10-128 10-128 10-128	71.2% 77.0% 75.5% 73.0% 74.2% 69.2%	29-100 29-100 29-100 25-100 25-100 25-100	0 0 0 1 1

Prep Method: SW3510C Log Number Range: 11-4082 to 11-4084



Page 1 of 1

Sample ID: LCS-022811

LCS/LCSD

Lab Sample ID: LCS-022811

LIMS ID: 11-4082

Matrix: Water

Data Release Authorized: ¿

Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Date Extracted LCS/LCSD: 02/28/11

Sample Amount LCS: 500 mL

LCSD: 500 mL

Date Analyzed LCS: 03/01/11 13:49

Final Extract Volume LCS: 1.0 mL LCSD: 1.0 mL $\,$

LCSD: 03/01/11 14:13

Instrument/Analyst LCS: ECD7/AAR LCSD: ECD7/AAR

Dilution Factor LCS: 1.00 LCSD: 1.00

Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016 Aroclor 1260	0.756 0.796	1.00	75.6% 79.6%	0.790 0.822	1.00	79.0% 82.2%	4.4%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	92.0%	90.8%
Tetrachlorometaxylene	77.0%	75.5%

Results reported in µg/L RPD calculated using sample concentrations per SW846.



TOTAL METALS

Page 1 of 1

Sample ID: JF-PLSD-WC-B08 SAMPLE

Lab Sample ID: SK67A QC

LIMS ID: 11-4082 Matrix: Water

Data Release Authorized:

Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/25/11
Date Received: 02/25/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/28/11	6010B	03/01/11	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/28/11	6010B	03/01/11	7440-47-3	Chromium	0.005	0.005	U
3010A	02/28/11	6010B	03/01/11	7440-50-8	Copper	0.002	0.006	
3010A	02/28/11	6010B	03/01/11	7439-92-1	Lead	0.02	0.02	U
3010A	02/28/11	6010B	03/01/11	7440-02-0	Nickel	0.01	0.01	U
3010A	02/28/11	6010B	03/01/11	7440-22-4	Silver	,0.003	0.003	U
3010A	02/28/11	6010B	03/01/11	7440-66-6	Zinc	0.01	0.01	

U-Analyte undetected at given RL RL-Reporting Limit



TOTAL METALS

Page 1 of 1

Sample ID: JF-PLSD-WC-B59
SAMPLE

Lab Sample ID: SK67B LIMS ID: 11-4083

Matrix: Water

Data Release Authorized

Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/25/11 Date Received: 02/25/11

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/28/11	6010B	03/01/11	7440-43-9	Cadmium	0.002	0.002	U
3010A	02/28/11	6010B	03/01/11	7440-47-3	Chromium	0.005	0.005	U
3010A	02/28/11	6010B	03/01/11	7440-50-8	Copper	0.002	0.006	
3010A	02/28/11	6010B	03/01/11	7439-92-1	Lead	0.02	0.02	Ū
3010A	02/28/11	6010B	03/01/11	7440-02-0	Nickel	0.01	0.01	U
3010A	02/28/11	6010B	03/01/11	7440-22-4	Silver	0.003	0.003	U
3010A	02/28/11	6010B	03/01/11	7440-66-6	Zinc	0.01	0.01	

U-Analyte undetected at given RL RL-Reporting Limit



TOTAL METALS

Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: SK67MB

LIMS ID: 11-4082

Matrix: Water

Data Release Authorized

Reported: 03/02/11

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	02/28/11	6010B	03/01/11	7440-43-9	Cadmium	0.002	0.002	U
			,,					_
3010A	02/28/11	6010B	03/01/11	7440-47-3	Chromium	0.005	0.005	U
3010A	02/28/11	6010B	03/01/11	7440-50-8	Copper	0.002	0.002	U
3010A	02/28/11	6010B	03/01/11	7439-92-1	Lead	0.02	0.02	U
3010A	02/28/11	6010B	03/01/11	7440-02-0	Nickel	0.01	0.01	U
3010A	02/28/11	6010B	03/01/11	7440-22-4	Silver	0.003	0.003	U
3010A	02/28/11	6010B	03/01/11	7440-66-6	Zinc	0.01	0.01	U

U-Analyte undetected at given RL RL-Reporting Limit



TOTAL METALS

Page 1 of 1

Lab Sample ID: SK67LCS

LIMS ID: 11-4082 Matrix: Water

Data Release Authorized

Reported: 03/02/11

Sample ID: LAB CONTROL

QC Report No: SK67-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

	Analysis	Spike	Spike	8	
Analyte	Method	Found	Added	Recovery	Q
Cadmium	6010B	0.514	0.500	103%	
Chromium	6010B	0.498	0.500	99.6%	
Copper	6010B	0.506	0.500	101%	
Lead	6010B	1.98	2.00	99.0%	
Nickel	6010B	0.49	0.50	98.0%	
Silver	6010B	0.519	0.500	104%	
Zinc	6010B	0.49	0.50	98.0%	

Reported in mg/L

N-Control limit not met Control Limits: 80-120%

SAMPLE RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized:

Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR

Date Sampled: 02/25/11 Date Received: 02/25/11

Client ID: JF-PLSD-WC-B08 ARI ID: 11-4082 SK67A

Analyte	Date Batch	Method	Units	RL	Sample
рН	02/25/11 022511#1	EPA 150.1	std units	0.01	7.58
Settleable Solids	02/26/11 022611#1	EPA 160.5	mL/L	0.1	< 0.1 U
HEM Oil & Grease	03/01/11 030111#1	EPA 1664A	mg/L	5.7	< 5.7 U

RLAnalytical reporting limit

Undetected at reported detection limit U

SAMPLE RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized:

Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR Date Sampled: 02/25/11 Date Received: 02/25/11

Client ID: JF-PLSD-WC-B59 ARI ID: 11-4083 SK67B

Analyte	Date Batch	Method	Units	RL	Sample
рН	02/25/11 022511#1	EPA 150.1	std units	0.01	7.57
Settleable Solids	02/26/11 022611#1	EPA 160.5	mL/L	0.1	< 0.1 U
HEM Oil & Grease	03/01/11 030111#1	EPA 1664A	mg/L	5.7	< 5.7 U

RLAnalytical reporting limit

U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized:

Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR Date Sampled: 02/25/11 Date Received: 02/25/11

Client ID: JF-PLSD-WC-B89 ARI ID: 11-4084 SK67C

Analyte	Date Batch	Method	Units	RL	Sample
рН	02/25/11 022511#1	EPA 150.1	std units	0.01	7.61
Settleable Solids	02/26/11 022611#1	EPA 160.5	mL/L	0.1	< 0.1 U
HEM Oil & Grease	03/01/11 030111#1	EPA 1664A	mg/L	5.7	< 5.7 U

Analytical reporting limit RL

Undetected at reported detection limit U

METHOD BLANK RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR Date Sampled: NA

Date Received: NA

Analyte	Method	Date	Units	Blank ID
Settleable Solids	EPA 160.5	02/26/11	mL/L	< 0.1 U
HEM Oil & Grease	EPA 1664A	03/01/11	mg/L	< 5.0 U

LAB CONTROL RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized

Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR

Date Sampled: NA Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
рН ЕРА 150.1	ICVL	02/25/11	std units	5 7.01	7.00	0.01
HEM Oil & Grease EPA 1664A	ICVL	03/01/11	mg/L	32.3	40.0	80.8%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

REPLICATE RESULTS-CONVENTIONALS SK67-The Boeing Company



Matrix: Water

Data Release Authorized:

Reported: 03/02/11

Project: Jorgensen Forge Event: 7KPL2JOR Date Sampled: 02/25/11 Date Received: 02/25/11

Analyte	Method	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: SK67A	Client ID: JF-PLSD-	-WC-B08				
рН	EPA 150.1	02/25/11	std units	7.58	7.58	0.00

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference



March 1, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SK80

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted seven wipe samples and one solid sample on February 28, 2011. The samples were received in good condition. The solid sample has been placed on hold pending further instructions.

The samples were analyzed for PCBs, as requested.

No analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely

ANALYTICAL RESOURCES, INC.

Kelly Bottem Client Services Manager kellyb@arilabs.com 206-695-6211 Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:			Requested:	rd. 1-46L))	Page:	1	of	1						ces, Incorporated
ARI Client Company: FLOYD SNIDER	5-24hr; 1-Standard, 1-HOLD Phone: 2062922078			Date:	8/11	Ice Pres	ent?	У	•		4611 S		Place, Suite 100		
Client Contact:						No. of	1	Cool	er		1				06-695-6201 (fax)
NICK GARSON/	TOM	Co	LLIGAN			Coolers:	- 1	Temp	- 1,						
Client Project Name:						-			Analysis	Requested T		1	Т —	Note	es/Comments
Sorgensen Forge Client Project #: 7 K PL 2 SOR	Samp	lers:	D. BRAM	NE		, (3									
Sample ID	Da	ate	Time	Matrix	No. Containers	PCBs (IPPb)									_1_
JF-PLSD-WP-BIOKI	2/28	5/11	1215	HEX	J	x								24 HR	TURN
JF-PLSD-WP-B10K2			1215		1										
JF-PLSD-WP-BIOK3			1215		1										
JF-PLSD-WP-Blok4			1215		1										
JF-PLSD-WP-BIOK5			1215		1										/
JF-PLSD-WP-SF			1210	\downarrow	1	<u>+</u>								STANI	SARD
JF-PLSD-PS-4L	1	:	1115	50lid	1									Ho	LD
JF-94-02-47	20	8/11	10:45	Dipl	1	X				selly	O	2/3	8)11		
										,	3	20	20		
)		
Comments/Special Instructions	Relinquis (Signatur	-	lands	2	Received by: (Signature)				Relinquished (Signature)	i by:			Received by: (Signature)		
	Printed N	Name:	N BR	AME	Printed Name:	Volo	avelo	ON	Printed Nam	e:			Printed Name	e:	
	Company			IDER	Company:	1		XII	Company:				Company:		
	Date & T		12 .	445	Date & Time:		1450)	Date & Time				Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Sample ID Cross Reference Report



ARI Job No: SK80

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	JF-PLSD-WP-B10K1	SK80A	11-4124	Wipe	02/28/11 12:15	02/28/11 14:50
2.	JF-PLSD-WP-B10K2	SK80B	11-4125	Wipe	02/28/11 12:15	02/28/11 14:50
3.	JF-PLSD-WP-B10K3	SK80C	11-4126	Wipe	02/28/11 12:15	02/28/11 14:50
4.	JF-PLSD-WP-B10K4	SK80D	11-4127	Wipe	02/28/11 12:15	02/28/11 14:50
5.	JF-PLSD-WP-B10K5	SK80E	11-4128	Wipe	02/28/11 12:15	02/28/11 14:50
6.	JF-PLSD-WP-SF	SK80F	11-4129	Wipe	02/28/11 12:10	02/28/11 14:50
7.	JF-PLSD-WP-4L	SK80G	11-4130	Wipe	02/28/11 10:45	02/28/11 14:50
8.	JF-PLSD-PS-4L	SK80H	11-4131	Solid	02/28/11 11:15	02/28/11 14:50

Printed 03/01/11



Cooler Receipt Form

Parino	TAKADINCPIA TAKA P.
ARI Client: BOE INC	Project Name: JOY GENSEN TOVER
COC No(s): NA	Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No:	Tracking No: NA
Preliminary Examination Phase:	
Were intact, properly signed and dated custody seals attached to	the outside of to cooler?
Were custody papers included with the cooler?	YES NO
Were custody papers properly filled out (ink, signed, etc.)	
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for cher	mistry) 446
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#: 9094166
Cooler Accepted by:	Date: 2/28/11 Time: 145()
	and attach all shipping documents
Log-In Phase:	
Was a temperature blank included in the cooler?	
What kind of packing material was used? Bubble Wrap	
Was sufficient ice used (if appropriate)?	
Were all bottles sealed in individual plastic bags?	
Did all bottles arrive in good condition (unbroken)?	
Were all bottle labels complete and legible?	
Did the number of containers listed on COC match with the number of all bottle labels and tags agree with custody papers?	
	73
Were all bottles used correct for the requested analyses? Do any of the analyses (bottles) require preservation? (attach preservation)	
Were all VOC vials free of air bubbles?	
Was sufficient amount of sample sent in each bottle?	
Date VOC Trip Blank was made at ARI	
Was Sample Split by ARI : NA YES Date/Time:	
TALIA	0/20/11 1500
Samples Logged by:Date	e:
** Notify Project Manag	er of discrepancies or concerns **
Sample ID on Bottle Sample ID on COC	Sample ID on Bottle Sample ID on COC
Additional Notes, Discrepancies, & Resolutions: UF-PLSD-WP-4L NO+ ON C.O.C.	sampled 2/28/11 @ 1045.
JE-PUSTO WP-4C MOT ONEO.C.	Scarrie de 100111 e 10
10	
By: AV Date: 2/38/11	
Small Air Bubbles Peabubbles' LARGE Air Bubbles	Small → "sm"
2mm > 4 mm	Peabubbles → "pb"
	Large → "lg"
The state of the s	TY - James N. C. M.



Page 1 of 1

Sample ID: JF-PLSD-WP-B10K1

SAMPLE

Lab Sample ID: SK80A LIMS ID: 11-4124

Matrix: Wipe

Data Release Authorized:

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 09:15

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL

Dilution Factor: 5.00 Silica Gel: No

Instrument/Analyst: ECD5/JGR GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	100%
Tetrachlorometaxylene	86.9%



Page 1 of 1

Sample ID: JF-PLSD-WP-B10K2

SAMPLE

Lab Sample ID: SK80B LIMS ID: 11-4125

Matrix: Wipe

Data Release Authorized:

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 09:34

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

Instrument/Analyst: ECD5/JGR GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	100%
Tetrachlorometaxylene	82.1%



Page 1 of 1

Lab Sample ID: SK80C LIMS ID: 11-4126

Matrix: Wipe

Data Release Authorized:

Reported: 03/01/11

Date Extracted: 02/28/11 Date Analyzed: 03/01/11 09:53 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

Sample ID: JF-PLSD-WP-B10K3

SAMPLE

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	104%
Tetrachlorometaxylene	86.6%



Page 1 of 1

Sample ID: JF-PLSD-WP-B10K4

SAMPLE

Lab Sample ID: SK80D LIMS ID: 11-4127

Matrix: Wipe

Data Release Authorized: ¿

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 10:12

Instrument/Analyst: ECD5/JGR

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPĽ2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	100%
Tetrachlorometaxylene	89.4%



Page 1 of 1

SAMPLE

Lab Sample ID: SK80E LIMS ID: 11-4128

Matrix: Wipe

Data Release Authorized:

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 10:31

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe

Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

Instrument/Analyst: ECD5/JGR GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	104%
Tetrachlorometaxylene	89.6%



Page 1 of 1

Sample ID: JF-PLSD-WP-SF

SAMPLE

Lab Sample ID: SK80F LIMS ID: 11-4129

Matrix: Wipe

Data Release Authorized:

Date Extracted: 02/28/11

Date Analyzed: 03/01/11 10:49

Instrument/Analyst: ECD5/JGR

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL

Dilution Factor: 5.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

CAS Number	Analyte	RL	Result		
12674-11-2	Aroclor 1016	1.0	< 1.0 U		
53469-21-9	Aroclor 1242	1.0	< 1.0 U		
12672-29-6	Aroclor 1248	1.0	< 1.0 U		
11097-69-1	Aroclor 1254	1.0	< 1.0 U		
11096-82-5	Aroclor 1260	1.0	< 1.0 U		
11104-28-2	Aroclor 1221	1.0	< 1.0 U		
11141-16-5	Aroclor 1232	1.0	< 1.0 U		

Reported in Total µg

Decachlorobiphenyl	103%
Tetrachlorometaxylene	88.4%



Page 1 of 1

Lab Sample ID: SK80G

LIMS ID: 11-4130 Matrix: Wipe

Data Release Authorized:

Reported: 03/01/11

B

Aroclor 1232

Date Extracted: 02/28/11
Date Analyzed: 03/01/11 11:08
Instrument/Analyst: ECD5/JGR

11141-16-5

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample ID: JF-PLSD-WP-4L

SAMPLE

< 1.0 U

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00 Silica Gel: No

1.0

CAS Number Analyte RLResult Aroclor 1016 1.0 < 1.0 U 12674-11-2 < 1.0 U Aroclor 1242 53469-21-9 1.0 Aroclor 1248 4.0 < 4.0 Y 12672-29-6 Aroclor 1254 4.9 11097-69-1 1.0 Aroclor 1260 11096-82-5 1.0 < 1.0 U Aroclor 1221 11104-28-2 1.0 < 1.0 U

Reported in Total µg

Decachlorobiphenyl	96.2%
Tetrachlorometaxylene	90.5%



Page 1 of 1

Lab Sample ID: MB-022811

LIMS ID: 11-4124

Matrix: Wipe

Data Release Authorized:

Reported: 03/01/11

Date Extracted: 02/28/11 Date Analyzed: 03/01/11 11:27

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample ID: MB-022811

METHOD BLANK

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL

Dilution Factor: 5.00 Silica Gel: No

CAS Number	Analyte	RL	Result	
12674-11-2	Aroclor 1016	1.0	< 1.0 U	
53469-21-9	Aroclor 1242	1.0	< 1.0 U	
12672-29-6	Aroclor 1248	1.0	< 1.0 U	
11097-69-1	Aroclor 1254	1.0	< 1.0 U	
11096-82-5	Aroclor 1260	1.0	< 1.0 U	
11104-28-2	Aroclor 1221	1.0	< 1.0 U	
11141-16-5	Aroclor 1232	1.0	< 1.0 U	

Reported in Total µg

Decachlorobiphenyl	110%
Tetrachlorometaxylene	89.9%



SW8082/PCB SURROGATE RECOVERY SUMMARY

QC Report No: SK80-The Boeing Company Project: Jorgensen Forge 7KPL2JOR Matrix: Wipe

Client ID	DCBP	TCMX	TOT OUT
MB-022811	110%	89.9%	0
LCS-022811	105%	91.8%	0
LCSD-022811	106%	95.4%	0
JF-PLSD-WP-B10K1	100%	86.9%	0 ·
JF-PLSD-WP-B10K2	100%	82.1%	0
JF-PLSD-WP-B10K3	104%	86.6%	0
JF-PLSD-WP-B10K4	100%	89.4%	0
JF-PLSD-WP-B10K5	104%	89.6%	0
JF-PLSD-WP-SF	103%	88.4%	0
JF-PLSD-WP-4L	96.2%	90.5%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(30-160)	(30-160)
(TCMX) = Tetrachlorometaxylene	(30-160)	(30-160)

Prep Method: SW3550C Log Number Range: 11-4124 to 11-4130



Page 1 of 1

Lab Sample ID: LCS-022811

LIMS ID: 11-4124

Matrix: Wipe

Data Release Authorized: 6

Date Extracted LCS/LCSD: 02/28/11

Date Analyzed LCS: 03/01/11 11:46

Instrument/Analyst LCS: ECD5/JGR

LCSD: 03/01/11 12:05

Reported: 03/01/11

QC Report No: SK80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 02/28/11 Date Received: 02/28/11

Sample Amount LCS: 1.00 Wipe

Sample ID: LCS-022811

LCS/LCSD

LCSD: 1.00 Wipe Final Extract Volume LCS: 10 mL

LCSD: 10 mL Dilution Factor LCS: 5.00

LCSD: 5.00

Silica Gel: No Acid Cleanup: Yes

LCSD: ECD5/JGR GPC Cleanup: No

Sulfur Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	5.2	5.0	104%	5.2	5.0	104%	0.0%
Aroclor 1260	4.8	5.0	96.0%	5.1	5.0	102%	6.1%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	105%	106%
Tetrachlorometaxylene	91.8%	95.4%

Reported in Total µg RPD calculated using sample concentrations per SW846.



March 15, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SL50

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted one water sample on March 3, 2011. The sample was received in good condition.

The sample was analyzed for PCBs, as requested.

No analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem

Client Services Manager kellyb@arilabs.com 206-695-6211

Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: SL50 ARI Client Company: FLOYD SNUER Client Contact: NICK GARSON / TOM COLLIGAN			Page: of Date: Jice Present? V No. of Cooler: Temps: 5.6					Analytical Resources, Incorporate Analytical Chemists and Consultar 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax					
Client Project Name:								Analysis F	Requested				Notes/Comments
Jorgensen Forge Client Project #:	Ta												
Client Project #: 7KPL2JOR	Samplers:	BRAM	1E		-1 %				:				
Sample ID	Date	Time	Matrix	No. Containers	TOTAL PCBs						-		
JF-PLSD-CB-10K	3/3/11	0830	Water	1	Х								
						,							
Comments/Special Instructions	Relinquished by (Signature)	See 1	2	Received by: (Signature)		μÚ	Do	Relinquished (Signature)	l by:			Received by (Signature)	
	Printed Name: DEAT	J BRAI	NE	Printed Name:	nilor	Mil	(801)	Printed Nam	e:			Printed Nam	e:
	Company:	DISNID		Company:	OT.	/ · · · · · · · · · · · · · · · · · · ·	7	Company:				Company:	,,, , , , , , , , , , , , , , , , , ,
	Date & Time: 3/3/1\	1435		Date & Time: 3/3/	1	143	5	Date & Time	;			Date & Time	:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Cooler Receipt Form

ARI Client: Floyd / Snider		Project Name:	vaensev	Force	
COC No(s):	MA .	Delivered by: Fed-Ex	.1		ar.
Assigned ARI Job No: 5 L50		Tracking No: _			
Preliminary Examination Phase:		11d0kiilg 140.			147
Were intact, properly signed and dated custody	seals attached to the	e outside of to cooler?		YES	NO
Were custody papers included with the cooler?				VES	NO
Were custody papers properly filled out (ink, signed, etc.)				TES TES	
		,		(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2		Σ_{i}			
If cooler temperature is out of compliance fill out	_	0/-/-	·.	Gun ID#: 90	2741017
Cooler Accepted by:		Date: 3/3/11	Time: <u></u> /	55	_
	custody forms and	l attach all shipping doc	cuments		
Log-In Phase:					
Was a temperature blank included in the cooler	?	• • • • • • • • • • • • • • • • • • • •		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Vet Ice Gel Packs Baggi	es Foam Block F	Paper Other:	
Was sufficient ice used (if appropriate)?				NA (YES)	NO
Were all bottles sealed in individual plastic bags	?		•••	YES	(NO)
Did all bottles arrive in good condition (unbroken)?				(YES)	NO
Were all bottle labels complete and legible?				YES	NO
Did the number of containers listed on COC match with the number of containers received?				YES	NO
Did all bottle labels and tags agree with custody papers?				YE8	NO
Were all bottles used correct for the requested analyses?				(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)				NA YES	NO
Were all VOC vials free of air bubbles?				(NA) YES	NO
Was sufficient amount of sample sent in each bottle?				YES	NO
Date VOC Trip Blank was made at ARI					
Was Sample Split by ARI : (NA) YES	Date/Time:	Equipment:		Split by:	:
\mathcal{A}_{λ}		alalu	1-	~ ~~	
Samples Logged by:	Date: _		_ Time:	2 2	
** Notify	Project Manager o	f discrepancies or cond	erns **		
Sample ID on Bottle Sample	ID on COC	Sample ID on Bot	ttle	Sample ID on C	coc
					····
Additional Notes, Discrepancies, & Resolution	ons'				
Additional Notes, Distributions, a Nesoral	<i></i>				
By: Date:			•		
Small Air Bubbles 2mm Peabubbles' 2-4 mm > 4 mm		Small → "sm"			
		Peabubbles → "pb"			
		Large → "lg"			
Annual Control of the	H	leadspace → "hs"			

Sample ID Cross Reference Report



ARI Job No: SL50

Client: The Boeing Company Project Event: 7KPL2JOR

Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR		
1.	JF-PLSD-CB-10K	SL50A	11-4526	Water	03/03/11 08:30	03/03/11 14:35		

Printed 03/03/11

RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082

Page 1 of 1

Sample ID: JF-PLSD-CB-10K

SAMPLE

Lab Sample ID: SL50A LIMS ID: 11-4526

Matrix: Water

GPC Cleanup: No

Sulfur Cleanup: Yes

Data Release Authorized: Reported: 03/14/11

QC Report No: SL50-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 03/03/11 Date Received: 03/03/11

Date Extracted: 03/04/11 Sample Amount: 500 mL Date Analyzed: 03/09/11 06:16 Final Extract Volume: 5.0 mL

Instrument/Analyst: ECD7/JGR Dilution Factor: 1.00 Silica Gel: No Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	1.0
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

Decachlorobiphenyl	76.8%
Tetrachlorometaxylene	75.5%



Page 1 of 1

Sample ID: MB-030411

METHOD BLANK

Lab Sample ID: MB-030411

LIMS ID: 11-4526 Matrix: Water

Data Release Authorized:

Date Extracted: 03/04/11

Date Analyzed: 03/09/11 04:17

Instrument/Analyst: ECD7/JGR

Reported: 03/14/11

GPC Cleanup: No

Sulfur Cleanup: Yes

QC Report No: SL50-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 500 mL Final Extract Volume: 5.0 mL

Dilution Factor: 1.00 Silica Gel: No Acid Cleanup: Yes

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

Decachlorobiphenyl	57.8%
Tetrachlorometaxyle	ne 75.2%



SW8082/PCB WATER SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: SL50-The Boeing Company Project: Jorgensen Forge 7KPL2JOR

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
	55.00				•
MB-030411	57.8%	41-111	75.2%	40-118	0
LCS-030411	58.2%	41-111	81.0%	40-118	0
LCSD-030411	58.8%	41-111	73.8%	40-118	0
JF-PLSD-CB-10K	76.8%	29-118	75.5%	38-118	0

Prep Method: SW3510C Log Number Range: 11-4526 to 11-4526



Page 1 of 1

Lab Sample ID: LCS-030411

LIMS ID: 11-4526

Matrix: Water Data Release Authorized:

Reported: 03/14/11

QC Report No: SL50-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount LCS: 500 mL

Sample ID: LCS-030411

LCSD: 500 mL

Final Extract Volume LCS: 5.0 mL

LCSD: 5.0 mL

LCS/LCSD

Dilution Factor LCS: 1.00

LCSD: 1.00

Silica Gel: No Acid Cleanup: Yes

Date Extracted LCS/LCSD: 03/04/11

Date Analyzed LCS: 03/09/11 04:41 LCSD: 03/09/11 05:05

Instrument/Analyst LCS: ECD7/JGR

LCSD: ECD7/JGR

GPC Cleanup: No Sulfur Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	4.60	5.00	92.0%	4.48	5.00	89.6%	2.6%
Aroclor 1260	4.08	5.00	81.6%	3.99	5.00	79.8%	2.2%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	58.2%	58.8%
Tetrachlorometaxylene	81.0%	73.8%

Results reported in $\mu g/L$ RPD calculated using sample concentrations per SW846.



March 9, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SL80

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted one wipe sample on March 7, 2011. The sample was received in good condition.

The sample was analyzed for PCBs, as requested.

No analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem

Client Services Manager kellyb@arilabs.com

206-695-6211 Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: SL&O	Turn-around Requested: 2 4 HR			Page: of						Analytical Resources, Incorporated Analytical Chemists and Consultants			
ARI Client Company: FLOYD SNIDER	Phone: 206 292 2078			Date:	17/11	Ice Prese			•		4611 So Tukwila,	outh 134th Place, Suite 100 , WA 98168	
Client Contact:	OM COLL	10-1 N			No. of Coolers:	. 1	Coole Temps	s: 3.	İ			206-695	5-6200 206-695-6201 (fax)
NICK GARSON / TO Client Project Name: SURGENSEN FORGE	// COCC	10474	<u>-</u>					Analysis I	Requested				Notes/Comments
Client Project #: 7KPL 2 SOR	Samplers:	D. BRAN	1E		PCBS (1900)								
Sample ID	Date	Time	Matrix	No. Containers	PC (18								
JF-PLSD-WP-VT	3/7/11	1245	HEX	1	×								
			•										
		,											
			:						,				
Comments/Special Instructions	Relinquished by: (Signature)	James &	2	Received by: (Signature)	/ /	1 11 (Relinquished (Signature)	by:			Received by: (Signature)	
	Printed Name: DEAL	V BRA	ME	Printed Name: /	nifer	Mil	(sap	Printed Nam	э:			Printed Name	e:
	Company:			Company:	71 - 7 - 2-	- · · · · ·	-	Company:				Company:	
	Date & Time: 3/7/11			Date & Time: 3/1/11		13	46	Date & Time				Date & Time:	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Cooler Receipt Form

ARI Client: Boej na	Project Name: <u>Jovalns</u>	en for	G.C	
COC No(s):	Delivered by: Fed-Ex UPS Co		ered Other:	
Assigned ARI Job No: S L 80	Tracking No:			(NA
Preliminary Examination Phase:				
Were intact, properly signed and dated custody seals attached to	the outside of to cooler?	,	YES	NO
Were custody papers included with the cooler?		((ES)	NO
Were custody papers properly filled out (ink, signed, etc.)		Ć	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chem	1 :			
If cooler temperature is out of compliance fill out form 00070F		Temp Gun ID#	#: <u>909</u>	41619
Cooler Accepted by:		ne: <u>1346</u>		
	and attach all shipping documents			
Log-In Phase:				
Was a temperature blank included in the cooler?			YES	(10)
•	Wet Ice Gel Packs Baggies Foan	n Block Paper O	_	(NO)
Was sufficient ice used (if appropriate)?		NA	YES	NO
Were all bottles sealed in individual plastic bags?			YES	(NG)
Did all bottles arrive in good condition (unbroken)?			YES	
Were all bottle labels complete and legible?			YES	NO
Did the number of containers listed on COC match with the numb			YES	NO
Did all bottle labels and tags agree with custody papers?		•	ES	NO
Were all bottles used correct for the requested analyses?			YES	NO
Do any of the analyses (bottles) require preservation? (attach pre		(NA)	YES	NO
Were all VOC vials free of air bubbles?	· · · · · ·	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?			YES	NO
Date VOC Trip Blank was made at ARI		(NA)		
Was Sample Split by ARI : (NA) YES Date/Time:	Equipment:		Split by:	
\Im	2/2/11	1450		,
	: <u>3/7/11</u> Time:	14 30		
** Notify Project Manage	r of discrepancies or concerns **			
	0 1 15 5 44		. ID	
Sample ID on Bottle Sample ID on COC	Sample ID on Bottle	Sample	e ID on CO	<u>. </u>
			· · · · · · · · · · · · · · · · · · ·	

Additional Notes, Discrepancies, & Resolutions:				
, , , , , , , , , , , , , , , , , , , ,				
By: Date:				
Small Air Bubbles Peabubbles' LARGE Air Bubbles 2-4 mm > 4 mm	Small → "sm"			
2-4 mm > 4 mm	Peabubbles → "pb"			
	Large → "lg"	 		

Sample ID Cross Reference Report



ARI Job No: SL80

Client: The Boeing Company Project Event: 7KPL2JOR

Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR	
1.	JF-PLSD-WP-VT	SL80A	11-4666	Wipe	03/07/11 12:45	03/07/11 13:46	

Printed 03/07/11



Page 1 of 1

Lab Sample ID: SL80A LIMS ID: 11-4666

Matrix: Wipe

Data Release Authorized:

Reported: 03/09/11

Date Extracted: 03/07/11
Date Analyzed: 03/09/11 09:22
Instrument/Analyst: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

Sample ID: JF-PLSD-WP-VT

SAMPLE

QC Report No: SL80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 03/07/11 Date Received: 03/07/11

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	6.3
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U
37324-23-5	Aroclor 1262	1.0	< 1.0 U
11100-14-4	Aroclor 1268	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	112%
Tetrachlorometaxylene	95.2%



Page 1 of 1

Lab Sample ID: MB-030711

LIMS ID: 11-4666

Matrix: Wipe

Data Release Authorized:

Reported: 03/09/11

Date Extracted: 03/07/11
Date Analyzed: 03/09/11 08:26
Instrument/Analyst: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample ID: MB-030711

METHOD BLANK

QC Report No: SL80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 5.00

Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2 53469-21-9 12672-29-6 11097-69-1 11096-82-5 11104-28-2	Aroclor 1016 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1221	1.0 1.0 1.0 1.0	< 1.0 U
11141-16-5 37324-23-5 11100-14-4	Aroclor 1232 Aroclor 1262 Aroclor 1268	1.0 1.0 1.0	< 1.0 U < 1.0 U < 1.0 U

Reported in Total μg

Decachlorobiphenyl	132%
Tetrachlorometaxvl	ene 118%



SW8082/PCB SURROGATE RECOVERY SUMMARY

QC Report No: SL80-The Boeing Company Project: Jorgensen Forge 7KPL2JOR Matrix: Wipe

Client ID	DCBP	TCMX	TOT OUT
MB-030711	132%	118%	0
LCS-030711	132%	117%	0
LCSD-030711	124%	109%	0
JF-PLSD-WP-VT	112%	95.2%	0

	LCS/MB LIMITS	QC LIMITS
 <pre>= Decachlorobiphenyl = Tetrachlorometaxylene</pre>	(30-160) (30-160)	(30-160) (30-160)

Prep Method: SW3580A

Log Number Range: 11-4666 to 11-4666



Page 1 of 1

LIMS ID: 11-4666

Matrix: Wipe Data Release Authorized:

Lab Sample ID: LCS-030711

Reported: 03/09/11

Date Extracted LCS/LCSD: 03/07/11

Date Analyzed LCS: 03/09/11 08:44

LCSD: 03/09/11 09:03

Instrument/Analyst LCS: ECD5/JLW

LCSD: ECD5/JLW

GPC Cleanup: No Sulfur Cleanup: Yes Sample ID: LCS-030711

LCS/LCSD

QC Report No: SL80-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 03/07/11 Date Received: 03/07/11

Sample Amount LCS: 1.00 Wipe

LCSD: 1.00 Wipe
Final Extract Volume LCS: 10 mL
LCSD: 10 mL

Dilution Factor LCS: 5.00 LCSD: 5.00

Silica Gel: No

Acid Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	6.6	5.0	132%	6.2	5.0	124%	6.2%
Aroclor 1260	6.4	5.0	128%	6.1	5.0	122%	4.8%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	132%	124%
Tetrachlorometaxylene	117%	109%

Reported in Total µg RPD calculated using sample concentrations per SW846.



April 15, 2011

Tom Colligan Floyd Snider 601 Union Street, Suite 600 Seattle, WA 98101-2341

RE: Project: Jorgensen Forge

ARI Job No: SR61

Dear Tom:

Please find enclosed analytical results and the original Chain of Custody documentation (COC) for the project referenced above. Analytical Resources, Incorporated (ARI) accepted three wipe samples on April 13, 2011. The samples were received in good condition.

The samples were analyzed for PCBs, as requested on the COC.

No analytical complications were noted for this analysis. Quality control results are included for your review.

A copy of the reports and all associated raw data will remain on file with ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Sottem

Client Services Manager kellyb@arilabs.com

206-695-6211

Enclosures

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: ARI Client Company:	Turn-around	HR Phone:			Page:	ı	of Ice	sent?	1	4	Analyti		nalytical Resources, Incorporated nalytical Chemists and Consultants 511 South 134th Place, Suite 100	
Client Contact: NICK GARSON / TO Client Project Name:	on col		292 207	78	No. of Coolers:	04	Coo Tem	ler .				Tukwila	a, WA 98168 5-6200 206-695-6201 (fax)	
								Analysis	Requested			,	Notes/Comments	
Client Project #:	Samplers:				9									
7KPL2 JOR	Samplers.	D. BRAN	1E		3									
Sample ID	Date	Time	Matrix	No. Containers	PCB (1866)									
JFPLSD-WP-808	4/13/11	1510	WIPE	1	×									
JF-PLSD-WP- 859	1	1513	1	1	1									
JF-PLSD-WP-B89	1	1518	<u></u>	i	1									
		1	7											
Comments/Special Instructions	Relinquished by:	11/		Received by:	X			Relinquished	i by:			Received by:		
	(Signature) Printed Name:	lem D	en	(Signature)	//			(Signature) Printed Nam	01			(Signature) Printed Name	01	
	DEA	N BRAI	YE	Printed Name:	Volaa	rdse	5		e.				ē.	
	Company:	YD ISNI		Company:	215			Company:				Company:		
	Date & Time: 4/13/11	155		Date & Time: 4 13 1	1 (;	555		Date & Time				Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Sample ID Cross Reference Report



ARI Job No: SR61

Client: The Boeing Company Project Event: 7KPL2JOR Project Name: Jorgensen Forge

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	JF-PLSD-WP-B08	SR61A	11-8056	Wipe	04/13/11 15:10	04/13/11 15:55
2.	JF-PLSD-WP-B59	SR61B	11-8057	Wipe	04/13/11 15:13	04/13/11 15:55
3.	JF-PLSD-WP-B89	SR61C	11-8058	Wipe	04/13/11 15:18	04/13/11 15:55

Printed 04/13/11



Cooler Receipt Form

ARI Client: Poemo		Project Name: OVGENS	en Forc	e	
COC No(s):	(NA)	Delivered by: Fed-Ex UPS Couri	er Hand Delive	red Other:	.00
Assigned ARI Job No:S	261	Tracking No:			NA
Preliminary Examination Phase:					
Were intact, properly signed and d	lated custody seals attached to t	he outside of to cooler?	,	/ES	(NO)
Were custody papers included with	h the cooler?		(YES	NO
Were custody papers properly fille	d out (ink, signed, etc.)	· · · · · · · · · · · · · · · · · · ·	7	YES .	NO
Temperature of Cooler(s) (°C) (red	commended 2.0-6.0 °C for chem	istry) 13.7			
If cooler temperature is out of com			Temp Gun ID	#: 9179U	11019
Cooler Accepted by:	AV	Date: 4/13/11 Time:	100	5	
	Complete custody forms a	nd attach all shipping documents			
Log-In Phase:					
Was a temperature blank included	in the cooler?			YES	(NO)
What kind of packing material w		Wet Ice Gel Packs Baggies Foam	Block Paper C		
Was sufficient ice used (if appropri			NA	YES	NO
Were all bottles sealed in individu				YES	NO
Did all bottles arrive in good cond	A STATE OF THE STA			YES	NO
Were all bottle labels complete ar				YES	NO
		er of containers received?		YES	NO
				YES	NO
Were all bottles used correct for t				YES	NO
AND THE PERSON OF THE PERSON O		servation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bub			(NA)	YES	NO
Was sufficient amount of sample				YES	NO
			NA		
Was Sample Split by ARI : N				Split by:	
Samples Logged by:	AV Date:	ulialu	1000		
Campios Logged by.		r of discrepancies or concerns **	.000		
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Samp	le ID on CC	C
1					
Additional Notes, Discrepanci	es, & Resolutions:				
	-1				
By: Da Small Air Bubbles Peabub	ate: bles' LARGE Air Bubbles	Small → "sm"			
2mm 2-4 m	Da tor I'm Dabbies	Peabubbles → "pb"			
		Large → "lg"			
		Headspace → "hs"			



Page 1 of 1

Sample ID: JF-PLSD-WP-B08

SAMPLE

Lab Sample ID: SR61A LIMS ID: 11-8056

Matrix: Wipe

Data Release Authorized: // Reported: 04/15/11

i: *B*

QC Report No: SR61-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 04/13/11 Date Received: 04/13/11

Date Extracted: 04/14/11
Date Analyzed: 04/15/11 09:10
Instrument/Analyst: ECD7/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 1.00

Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	89.0%
Tetrachlorometaxylene	85,8%



Page 1 of 1

Lab Sample ID: SR61B

LIMS ID: 11-8057

Matrix: Wipe

Data Release Authorized:

Reported: 04/15/11

Date Extracted: 04/14/11 Date Analyzed: 04/15/11 09:34

Instrument/Analyst: ECD7/JGR GPC Cleanup: No Sulfur Cleanup: Yes

Acid Cleanup: Yes

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 1.00 Silica Gel: No

QC Report No: SR61-The Boeing Company

7KPL2JOR

Project: Jorgensen Forge

Date Sampled: 04/13/11

Date Received: 04/13/11

SAMPLE

CAS Number	Analyte	RL	Result	
12674-11-2	Aroclor 1016	1.0	< 1.0 U	
53469-21-9	Aroclor 1242	1.0	< 1.0 U	
12672-29-6	Aroclor 1248	1.0	< 1.0 U	
11097-69-1	Aroclor 1254	1.0	< 1.0 U	
11096-82-5	Aroclor 1260	1.0	< 1.0 U	
11104-28-2	Aroclor 1221	1.0	< 1.0 U	
11141-16-5	Aroclor 1232	1.0	< 1.0 U	

Reported in Total µg

Decachlorobiphenyl	91.0%
Tetrachlorometaxylene	87.5%



Page 1 of 1

Lab Sample ID: SR61C

LIMS ID: 11-8058

Matrix: Wipe

Data Release Authorized:

Reported: 04/15/11

Date Extracted: 04/14/11

Date Analyzed: 04/15/11 09:58 Instrument/Analyst: ECD7/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample ID: JF-PLSD-WP-B89

SAMPLE

QC Report No: SR61-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 04/13/11 Date Received: 04/13/11

Sample Amount: 1.00 Wipe

Final Extract Volume: 10 mL Dilution Factor: 1.00

Silica Gel: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in Total µg

Decachlorobiphenyl	96.0%
Tetrachlorometaxylene	94.8%



Page 1 of 1

Lab Sample ID: MB-041411

LIMS ID: 11-8056

Matrix: Wipe

Data Release Authorized:

Reported: 04/15/11

Date Extracted: 04/14/11
Date Analyzed: 04/15/11 10:22

Instrument/Analyst: ECD7/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Sample ID: MB-041411 METHOD BLANK

QC Report No: SR61-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: NA Date Received: NA

Sample Amount: 1.00 Wipe Final Extract Volume: 10 mL Dilution Factor: 1.00

Silica Gel: No

CAS Number	Analyte	RL	Result	
12674-11-2	Aroclor 1016	1.0	< 1.0 U	
53469-21-9	Aroclor 1242	1.0	< 1.0 U	
12672-29-6	Aroclor 1248	1.0	< 1.0 U	
11097-69-1	Aroclor 1254	1.0	< 1.0 U	
11096-82-5	Aroclor 1260	1.0	< 1.0 U	
11104-28-2	Aroclor 1221	1.0	< 1.0 U	
11141-16-5	Aroclor 1232	1.0	< 1.0 U	

Reported in Total µg

Decachlorobiphenyl	112%
Tetrachlorometaxylene	108%



SW8082/PCB SURROGATE RECOVERY SUMMARY

QC Report No: SR61-The Boeing Company Project: Jorgensen Forge Matrix: Wipe

7KPL2JOR

Client ID	DCBP	TCMX	TOT OUT
MB-041411	112%	108%	0
LCS-041411	106%	106%	0
LCSD-041411	106%	104%	0
JF-PLSD-WP-B08	89.0%	85.8%	0
JF-PLSD-WP-B59	91.0%	87.5%	0
JF-PLSD-WP-B89	96.0%	94.8%	0

	LCS/MB LIMITS	QC LIMITS
(DCBP) = Decachlorobiphenyl	(30-160)	(30-160)
(TCMX) = Tetrachlorometaxylene	(30-160)	(30-160)

Prep Method: SW3580A

Log Number Range: 11-8056 to 11-8058



Page 1 of 1

Lab Sample ID: LCS-041411

LIMS ID: 11-8056

Matrix: Wipe

Data Release Authorized:

Reported: 04/15/11

Date Extracted LCS/LCSD: 04/14/11

Date Analyzed LCS: 04/15/11 10:46

LCSD: 04/15/11 11:10
Instrument/Analyst LCS: ECD7/JGR

Instrument/Analyst LCS: ECD7/JGR LCSD: ECD7/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes

Sample ID: LCS-041411

LCS/LCSD

QC Report No: SR61-The Boeing Company

Project: Jorgensen Forge

7KPL2JOR

Date Sampled: 04/13/11 Date Received: 04/13/11

Sample Amount LCS: 1.00 Wipe

LCSD: 1.00 Wipe

Final Extract Volume LCS: 10 mL

LCSD: 10 mL

Dilution Factor LCS: 1.00 LCSD: 1.00

Silica Gel: No

Acid Cleanup: Yes

		Spike	LCS		Spike	LCSD	
Analyte	LCS	Added-LCS	Recovery	LCSD	Added-LCSD	Recovery	RPD
Aroclor 1016	5.9	5.0	118%	4.2	5.0	84.0%	33.7%
Aroclor 1260	6.2	5.0	124%	4.3	5.0	86.0%	36.2%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	106%	106%
Tetrachlorometaxylene	106%	104%

Reported in Total μg RPD calculated using sample concentrations per SW846.